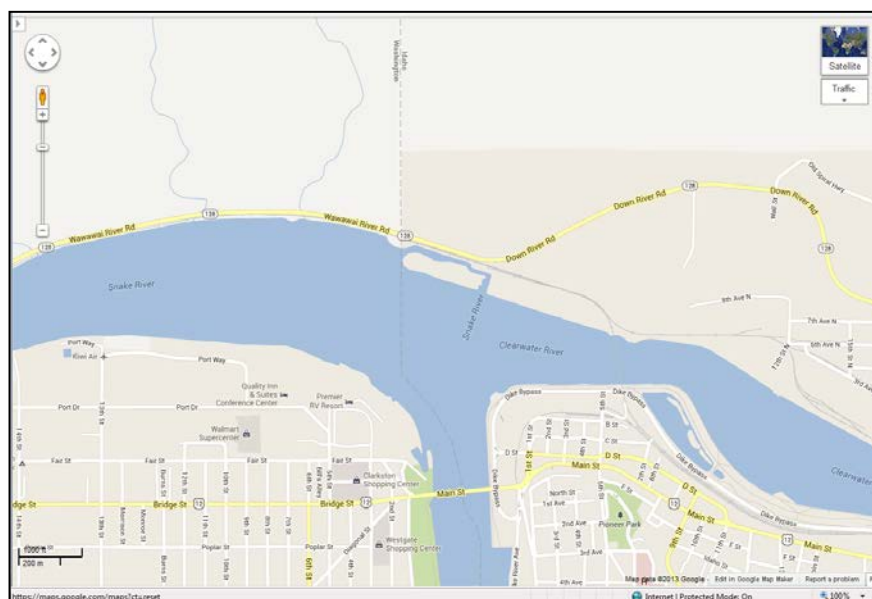
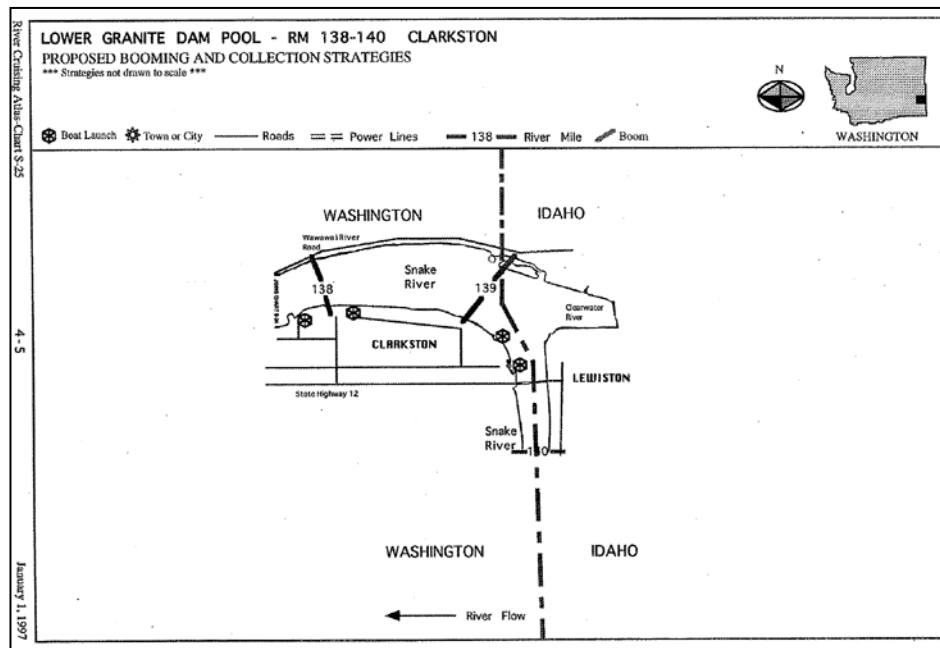


Train – Inland River

A unit train consisting of 120 cars each carrying 600 barrels of crude oil was transiting a section of rail line that runs adjacent to the Clearwater River, when it derailed on July 24th, 2013. Three tank cars are off the tracks near river mile 0.5, and at least one is known to be compromised and leaking oil into the Clearwater River. Initial reports estimate at least 600 barrels are in the water. Based on volume observed, it is likely that the other two derailed cars are leaking as well. The Clearwater River discharge is at about 15,000 cfs, at 58°F, and the channel is approximately 27 ft deep. Notifications were made and unified command was formed.





General Waterway Layout and Commerce

- A 14-foot shallow-draft channel extends 359 miles from Vancouver to Lewiston, Idaho, accommodating tugs, barges, and log rafts, worth \$2.2 billion.
- Port of Lewiston is part of the Columbia-Snake River System called The Inland Marine Transportation System, and it is managed by the U.S. Army Corps of Engineers. The Port of Lewiston is located at the inland terminus of the river system. It offers a sensible alternate route for shipping goods to Canada and the Midwest United States.
- There are four dams on each of the rivers, totaling eight dams and locks that help vessels move upstream and downstream between the Port of Lewiston and Portland/Vancouver. These locks move vessels some 222 meters (730 vertical feet) from the coastline to the Port of Lewiston. The 4.3-meter (14-foot) river channel can accommodate loaded barges with an average 3 meters (10 feet) of draft and tugs with from 3.4 to 3.7 meters (11 to 12 feet) of draft.
- This Port of Lewiston facility has five bays for rail tracks connecting to both the Union Pacific and Burlington Northern Santa Fe Railroads. Outside and inside storage is provided for paper and forest products, agricultural products, and manufactured goods.

- The Port of Lewiston is connected to the Burlington Northern Santa Fe and Union Pacific Railroads.

Resources at Risk Information (from Lower Snake River/Lower Granite Pool Area GRP):

Wildlife

Because moisture is limited in much of the lands surrounding the project area, the waters provided by the Snake River provide an important part of the food, water and cover for numerous wildlife species. Wildlife that typically use the riparian and wetland areas associated with the project area include waterfowl, raptors, upland game birds, aquatic furbearers, and big game. Waterfowl, raptors, and aquatic furbearers warrant special concern in the event of an oil spill in this region.

In an effort to improve habitat, the Corps of Engineers has established numerous Habitat Management Units (HMUs) along the Snake River. The size and complexity of these HMUs varies, but many of them include irrigation, tree and shrub plantings, food plots, nesting and brooding cover, brush piles, and nesting structures.

The HMUs established within the Lower Granite Area include (with river mile locations):

- Transmission Line HMU - RM 109
- Knoxway Canyon HMU - RMI 16
- Granite Goose Pasture HMU - RM 120
- Moses HMU - RM 129
- Alpowa Creek HMU - RM 131
- Chief Timothy HMU - RM 132
- Evans Road Ponds - RM 135

Other significant wildlife areas, in addition to those habitats provided by HMUs, include shorelines with natural riparian vegetation, islands, wetlands, stream and river mouths (both free-flowing and impounded), and shallow backwater areas - especially those adjacent to natural shorelines.

Waterfowl

Waterfowl are present in the Snake River dam pools throughout the year. Canada geese and mallard ducks constitute the bulk of locally nesting waterfowl. Availability of nesting and brood-rearing habitat are the most significant factors limiting the nesting productivity of this region. Natural nesting tends to be concentrated on islands rather than on the river banks. One notable exception to this generalization is the fact that many of the Canada geese in the upper Snake River pools nest on cliffs and ledges adjacent to the river. In some areas, nesting opportunities have been enhanced by providing artificial nest structures.

The greatest abundance and species diversity of waterfowl occur during those months when birds from other areas move into the region for overwintering. These include large numbers of

Canada geese, as well as both dabbling ducks and diving ducks. These birds heavily utilize adjacent agricultural lands, lakes, marshes, backwater areas, and the Corps of Engineers HMUs for foraging and loafing.

Raptors

The birds of prey most likely to be found in the immediate vicinity of the river include the prairie falcon, golden eagle, osprey, and bald eagle. Only the first two actually nest along the river. Because of their food and habitat preferences, however, these species are not likely to be at significant risk during an oil spill. Ospreys and bald eagles, the species that would be at greatest risk due to an oil spill, are generally uncommon along the Snake River except for migratory or transient individuals.

Aquatic Furbearers

Aquatic furbearers occur in each darn pool. They include muskrat, beaver, river otter, and mink. In general, this group is dependent on riverine areas, embayments, ponds, tributaries, and riparian forests for den sites and foraging areas. The presence of a water barrier around den sites provides essential protection from predators, and is especially important when young are present in the early spring and summer.

Other Wildlife

The project reservoirs provide essential habitat for numerous reptiles, amphibians, small mammals, bats, shorebirds, and songbirds. In general, riparian and wetland areas support higher population densities and species diversity than dry land shrub-steppe, talus, cliff, and/or grassland habitat, which are also prevalent along the project reservoirs. Habitats associated with the river generally support trees or dense grass/forb cover that provide more structurally complex areas and more abundant forage resources than adjacent uplands.

Threatened and Endangered Species

Of the wildlife species likely to be found along the Snake River in this region, only the bald eagle is federally listed as a threatened species. It is anticipated that bald eagles will be downlisted in the near future.

Fish

The Snake River is used for rearing and transportation by many fish stock groups. A brief description of these fish groups can be found on the following pages; see page 6-5 for a salmonid migration chart. The focus of response in the event of a spill of oil or hazardous materials into the Snake River should be the protection of the juvenile populations and the food web that supports them. Juvenile fish rear and feed in a shallow water environment, and are not sufficiently mobile to escape the effects of oil. The major food source for all juvenile fish is also located in this environment. Destroying this habitat can have a devastating effect on the survival of juvenile populations thereby impacting the survival of the total fish population and ultimately other organisms that depend on these fish for food. Oil spill response strategies should include priority protection of shallow water habitat.

Coho (Silver) Salmon

Adult Coho enter their spawning areas starting in late August and lasting until December. The major migration occurs from August to mid September. Rearing takes place in smaller tributaries. Juvenile Coho spend about a year in the stream they were spawned, feeding mainly on zooplankton and emerging insects. Migration downriver generally occurs from April to June, with the juveniles utilizing shoreline cover and open waters.

Chinook (King) Salmon (Threatened Species)

Spring chinook:

Adult spring chinook begin entering the Columbia River in February and reach the Snake River by April. The peak migration occurs from April through June. Spawning occurs in many of the Snake River tributaries. Young chinook feed on aquatic insect larvae, terrestrial insects, and small invertebrates. Juveniles outmigrate/rear as yearlings from April through May, and utilize a deep water environment and are dependent upon benthic prey.

Summer chinook:

Adult summer chinook begin entering the Columbia River in May and reach the Snake River by June. The peak migration occurs from June through August. Spawning occurs in many of the Snake River tributaries. Young chinook feed on aquatic insect larvae, terrestrial insects, and small invertebrates. Juveniles outmigrate/rear as yearlings from April through May. Some fingerlings from the spring and summer runs may stay in the river up to 1 1/2 years before migrating to the ocean.

Fall chinook:

Adult fall chinook begin entering the Columbia River in July and reach the Snake River by August. The peak migration occurs from August through October. There are two basic races of fall chinook - tules and upriver-brights. Tules spawn in September, and generally outmigrate in the spring. Upriver-brights are a late spawning, November through January, upriver variety including hatchery and wild fish. Wild stock rear in shallow water rapids within the dam reservoir pools.

Sockeye Salmon (Endangered Species)

Adult sockeye begin entering the Columbia River in April and reach the Snake River by May. The peak migration occurs from June through August. All sockeye are wild stock, and require spawning grounds in streams lying adjacent to lakes. After the eggs hatch, juveniles migrate to a lake and spend 1 to 3 years there before they outmigrate to the ocean. Outmigration generally occurs in May and June.

Steelhead Trout

Steelhead can be found in the Columbia and Snake Rivers year round. There are two runs of steelhead, summer and winter. Summer steelhead begin entering the Columbia River in February and reach the Snake River by April, with the peak migration occurring from June through October. Summer steelhead spend the winter in the Columbia and Snake until they

move into their home streams to spawn in the spring. Winter steelhead migration begins in November and continues through April. Juvenile steelhead generally outmigrate in March through June.

Other Resident Fish

Other resident fish can be found in the waters of the Snake River year round. These fish rear in slower side water pools where there is more cover and a slower water flow rate. Juveniles would be most vulnerable to the effects of an oil spill.